

REMARKS

The present application was filed on June 14, 1999 with claims 1-22. Claims 1-22 remain pending. Claims 1, 9 and 17 are the pending independent claims.

In the outstanding final Office Action dated September 4, 2003, the Examiner: (i) rejected claims 1-6, 9-14 and 17-22 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,111,878 (hereinafter "Powell") in view of IEEE article 0-7803-1375-5/93 (hereinafter "Kelly"); and (ii) rejected claims 7-8 and 15-16 under 35 U.S.C. §103(a) as being unpatentable over Powell in view of Kelly and further in view of U.S. Patent No. 5,638,379 (hereinafter "Narasimha").

In this response, Applicant traverses the §103(a) rejections. Applicant respectfully requests reconsideration of the present application in view of the following remarks.

A proper *prima facie* case of obviousness requires that the cited references when combined must "teach or suggest all the claim limitations," and that there be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references or to modify the reference teachings. See Manual of Patent Examining Procedure (MPEP), Eighth Edition, August 2001, §706.02(j).

Applicant submits that the Examiner has failed to establish a proper *prima facie* case of obviousness in the present §103(a) rejection, in that the Powell and Kelly references, even if assumed to be combinable, fail to teach or suggest all the claim limitations, and in that no cogent motivation has been identified for combining the references or for modifying the reference teachings to reach the claimed invention.

Independent claims 1, 9 and 17 recite that the digital subscriber line transport signal includes frequency and phase information associated with a transmitter-side timing reference signal. Additionally, a local oscillator is provided in the transmitter and adapted to receive the transmitter-side timing reference signal as an external timing reference. Furthermore, upon receiving the transport signal at the receiver, the frequency and phase information is recovered and a receiver-side timing reference signal is derived and used to control timing in the receiver.

The Examiner in formulating the §103(a) rejection acknowledges that the Powell reference fails to teach or suggest a digital subscriber line transport signal. See the final Office Action at page

2, third paragraph. However, the Examiner nonetheless argues that the claimed arrangements would be obvious in view of the combined teachings of Powell and Kelly. Applicant respectfully disagrees.

The Examiner characterizes the Kelly reference as teaching “a DS1 to HDSL synchronizer and desynchronizer” (Final Office Action, page 2, third paragraph). Even if one were to assume that this characterization of Kelly is correct, the combined teachings of Powell and Kelly still fail to meet the above-cited claim limitations, for the reasons given below.

The Examiner contends that Powell discloses a local oscillator in the transmitter that is provided with a transmitter-side timing reference signal as an external timing reference. In support of this contention, the Examiner points to element 14 of FIG. 1 in Powell. However, this element is not a local oscillator. It is a comparator. Powell provides the following description of element 14 in column 3, lines 18-26, with emphasis supplied:

[T]he source frequency f_s is compared in a comparator 14 with a first network derived clock frequency f_{nx} on a line 16 from a “local sync 1” source 17. The local sync source 17 is responsive, i.e., is traceable to a Stratum 1 clock having an accuracy of 10^{-11} or better. The result of the comparison is a Synchronous Residual Time Stamp (SRTS) signal on a line 18, to be described in more detail below and indicative of a difference between the source clock frequency f_s and the first network derived clock frequency f_{nx} , i.e., $f_s - f_{nx} - \Delta f_{SRTS}$.

Therefore, the Examiner mistakes a comparator for a local oscillator in rejecting the independent claims of the present invention. Powell simply fails to disclose or suggest a transmitter-side oscillator that receives a transmitter-side timing reference as an external timing reference and produces a transport signal configured to include frequency and phase information as claimed.

From the foregoing, it is apparent that each of claims 1, 9 and 17 includes at least one limitation which is not taught or suggested by the proposed combination of Powell and Kelly. The combined teachings of these references therefore fail to “teach or suggest all the claim limitations” as would be required by a proper §103(a) rejection.

Also, as indicated previously, the Examiner has failed to identify a cogent motivation for combining the cited references or for modifying the Powell and Kelly teachings to reach the claimed invention. The Examiner states that it would be obvious to combine these references or to modify

their teachings to reach the limitations in question. In support of this position, the Examiner provides the following statement of obviousness at page 3, first paragraph of the final Office Action, with emphasis supplied:

Therefore, it would have been obvious to an ordinary person skilled in the art at the time of the invention to include using on a new telecommunications network taught by Kelly et al. with the method and apparatus of Powell. The motivation is to provide repeaterless DS1 service over existing copper-based networks for a fraction of the cost and time over conditioned DS1 facilities.

The Federal Circuit has stated that when patentability turns on the question of obviousness, the obviousness determination “must be based on objective evidence of record” and that “this precedent has been reinforced in myriad decisions, and cannot be dispensed with.” In re Sang-Su Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002). Moreover, the Federal Circuit has stated that “conclusory statements” by an examiner fail to adequately address the factual question of motivation, which is material to patentability and cannot be resolved “on subjective belief and unknown authority.” Id. at 1343-1344. There has been no showing in the present §103(a) rejection of objective evidence of record that would motivate one skilled in the art to combine Powell and Kelly or to modify their teachings to produce the particular limitations in question. The above-quoted statement of obviousness given by the Examiner in the Office Action is precisely the type of subjective, conclusory statement that the Federal circuit has indicated provides insufficient support for an obviousness rejection. The alleged motivation is nothing more than recitation of an advantage associated with the claimed arrangements, and does not constitute the required objective evidence of record. The absence of any such objective evidence instead suggests that the Examiner has simply undertaken a piecemeal reconstruction of the claimed invention, given the benefit of access to the disclosure provided by Applicant.

Therefore, the proposed combination of Powell and Kelly fails to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), as specified in M.P.E.P. §2143. Dependent claims 2-6, 10-14 and 18-22 are believed allowable for at least the reasons identified above with regard to their

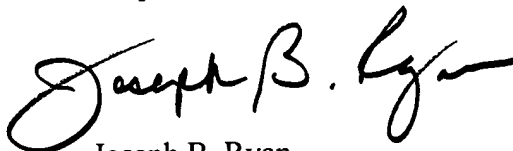
respective independent claims, and one or more of these claims are also believed to specify additional patentable subject matter. Accordingly, withdrawal of the §103(a) rejection of claims 1-6, 9-14 and 17-22 is respectfully requested.

With regard to the rejection of claims 7-8 and 15-16 under 35 U.S.C. §103(a) as being unpatentable over Powell in view of Kelly and further in view of Narasimha, Applicant asserts that such claims are patentable for at least the reasons that independent claims 1, 9 and 17, from which claims 7-8 and 15-16 directly depend, are patentable. One or more of these claims are also believed to specify additional patentable subject matter. Accordingly, withdrawal of the rejection to claims 7-8 and 15-16 under §103(a) is respectfully requested.

In view of the above, Applicant believes that claims 1-22 are in condition for allowance, and respectfully requests withdrawal of the §103(a) rejections.

As indicated above, a Notice of Appeal is submitted concurrently herewith.

Respectfully submitted,



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Enclosure(s): Notice of Appeal